

Application No.: 10/743,390  
 Response dated November 28, 2005  
 Office Action dated August 4, 2005

Docket No.: 21581-00311-US

## IN THE SPECIFICATION:

Please amend Table 1 on page 27 to read as follows:

Table 1

	Chemical conversion treatment	Coat amount (mg/m <sup>2</sup> )	Drying condition	Fluorine concentration (in a chemical conversion coat at %)	Sludge	SDT
Ex. 1	Zirconium	35	80°C x 5min.	8.7	+	+
Ex. 2	Zirconium	33	35°C x 10 min.	9.8	+	+
Ex. 3	Zirconium	31	35°C x 60 min.	6.7	+	○
Ex. 4	Zirconium	37	120°C x 5 min.	7.4	+	○
Ex. 5	Zirconium	39	170°C x 5 min.	5.7	+	○
Ex. 6	Zirconium	36	180°C x 3 min.	5.7	+	○
Compar. Ex. 1	Zirconium	33	Without drying	—	+	*
Compar. Ex. 2	Zirconium	30	25°C x 10 min.	10.3	+	*
Compar. Ex. 3	Zinc phosphate	—	Without drying	—	*	○
Compar. Ex. 4	Zinc phosphate	—	80°C x 5 min.	—	*	○

Application No.: 10/743,390  
 Response dated November 28, 2005  
 Office Action dated August 4, 2005

Docket No.: 21581-00311-US

## IN THE SPECIFICATION:

Please amend Table 1 on page 27 to read as follows:

Table 1

	<u>Chemical conversion treatment</u>	<u>Coat amount (mg/m<sup>2</sup>)</u>	<u>Drying condition</u>	<u>Fluorine concentration (in a chemical conversion coat at %)</u>	<u>Sludge</u>	<u>SDT</u>
<u>Ex. 1</u>	<u>Zirconium</u>	<u>35</u>	<u>80°C x 5 min.</u>	<u>8.7</u>	<u>o</u>	<u>o</u>
<u>Ex. 2</u>	<u>Zirconium</u>	<u>33</u>	<u>35°C x 10 min.</u>	<u>9.8</u>	<u>o</u>	<u>o</u>
<u>Ex. 3</u>	<u>Zirconium</u>	<u>31</u>	<u>35°C x 60 min.</u>	<u>6.7</u>	<u>o</u>	<u>o</u>
<u>Ex. 4</u>	<u>Zirconium</u>	<u>37</u>	<u>120°C x 5 min.</u>	<u>7.4</u>	<u>o</u>	<u>o</u>
<u>Ex. 5</u>	<u>Zirconium</u>	<u>39</u>	<u>170°C x 5 min.</u>	<u>5.7</u>	<u>o</u>	<u>o</u>
<u>Ex. 6</u>	<u>Zirconium</u>	<u>36</u>	<u>180°C x 3 min.</u>	<u>5.7</u>	<u>o</u>	<u>o</u>
<u>Compar. Ex. 1</u>	<u>Zirconium</u>	<u>33</u>	<u>Without drying</u>	<u>-</u>	<u>o</u>	<u>x</u>
<u>Compar. Ex. 2</u>	<u>Zirconium</u>	<u>30</u>	<u>25°C x 10 min.</u>	<u>10.3</u>	<u>o</u>	<u>x</u>
<u>Compar. Ex. 3</u>	<u>Zinc phosphate</u>	<u>-</u>	<u>without drying</u>	<u>-</u>	<u>x</u>	<u>o</u>
<u>Compar. Ex. 4</u>	<u>Zinc phosphate</u>	<u>-</u>	<u>80°C x 5 min.</u>	<u>-</u>	<u>x</u>	<u>o</u>

Application No.: 10/743,390  
 Response dated November 28, 2005  
 Office Action dated August 4, 2005

Docket No.: 21581-00311-US

Please amend Tables 2 and 3 on page 28 to read as follows:

Table 2

	Coat amount (mg/m <sup>2</sup> )	Added element	Additive	Drying condition	Fluorine concentration (in a chemical conversion coat at %)	Sludge	SDT
7	35	Zn	—	25°C x 10 min.	8.8	⊕	⊕
8	49	Zn, Mg	—	25°C x 10 min.	6.9	⊕	⊖
9	37	Zn, Si	—	25°C x 10 min.	7.2	⊕	⊖
10	51	Mg, Si	—	25°C x 10 min.	4.8	⊕	⊖
11	39	Cu	—	25°C x 10 min.	5.3	⊕	⊖
12	42	Zn	—	80°C x 5 min.	6.5	⊕	⊖
13	38	Silane coupling agent A	—	—	4.8	⊕	⊖
14	43	Mg	Water borne resin A	—	4.5	⊕	⊖
15	39	Mg, Zn, Silane coupling agent B	—	—	4.9	⊕	⊖

Application No.: 10/743,390  
 Response dated November 28, 2005  
 Office Action dated August 4, 2005

Docket No.: 21581-00311-US

Table 3

	Coat amount (mg/m <sup>2</sup> )	Basic aqueous solution	treatment condition	Fluorine concentration (in a chemical conversion coat at %)	sludge	SDT
Ex. 16	32	Ammonium hydroxide	pH10 50°C x 3 min.	3.1	+	○
Ex. 17	28	Ammonium hydroxide	pH9 50°C x 10 min.	5.3	+	○
Ex. 18	35	Potassium hydroxide	pH12 40°C x 3 min.	1.0	+	○
Ex. 19	36	Lithium hydroxide	pH12 40°C x 3 min.	1.1	+	○
Ex. 20	33	Sodium hydroxide	pH9 50°C x 5 min.	1.0	+	○
Compar. Ex. 5	35	Ammonium hydroxide	pH9 50°C x 10 min.	10.5	+	+

Application No.: 10/743,390  
 Response dated November 28, 2005  
 Office Action dated August 4, 2005

Docket No.: 21581-00311-US

Table 2

	<u>Coat amount (mg/m<sup>2</sup>)</u>	<u>Added element</u>	<u>Additive</u>	<u>Drying condition</u>	<u>Fluorine concentration (in a chemical conversion coat at %)</u>	<u>Sludge</u>	<u>SDT</u>
7	<u>35</u>	<u>Zn</u>	<u>-</u>	<u>25°C x 10 min.</u>	<u>8.8</u>	<u>o</u>	<u>o</u>
8	<u>49</u>	<u>Zn, Mg</u>	<u>-</u>	<u>25°C x 10 min.</u>	<u>6.9</u>	<u>o</u>	<u>o</u>
9	<u>37</u>	<u>Zn, Si</u>	<u>-</u>	<u>25°C x 10 min.</u>	<u>7.2</u>	<u>o</u>	<u>o</u>
10	<u>51</u>	<u>Mg, Si</u>	<u>-</u>	<u>25°C x 10 min.</u>	<u>4.8</u>	<u>o</u>	<u>o</u>
11	<u>39</u>	<u>Cu</u>	<u>-</u>	<u>25°C x 10 min.</u>	<u>5.3</u>	<u>o</u>	<u>o</u>
12	<u>42</u>	<u>Zn</u>	<u>-</u>	<u>80°C x 5 min.</u>	<u>6.5</u>	<u>o</u>	<u>o</u>
13	<u>38</u>	<u>Silane coupling agent A</u>	<u>-</u>	<u>-</u>	<u>4.8</u>	<u>o</u>	<u>o</u>
14	<u>43</u>	<u>Mg</u>	<u>Water-borne resin A</u>	<u>-</u>	<u>4.5</u>	<u>o</u>	<u>o</u>
15	<u>39</u>	<u>Mg, Zn, Silane coupling agent B</u>	<u>-</u>	<u>-</u>	<u>4.9</u>	<u>o</u>	<u>o</u>

Application No.: 10/743,390  
 Response dated November 28, 2005  
 Office Action dated August 4, 2005

Docket No.: 21581-00311-US

Table 3

	<u>Coat amount</u> (mg/m <sup>2</sup> )	<u>Basic aqueous solution</u>	<u>Treatment condition</u>	<u>Fluorine concentration</u> (in a chemical conversion coat at %)	<u>Sludge</u>	<u>SDT</u>
<u>Ex. 16</u>	<u>32</u>	<u>Ammonium hydroxide</u>	<u>pH10</u> <u>50°C x</u> <u>3 min.</u>	<u>3.1</u>	<u>o</u>	<u>◎</u>
<u>Ex. 17</u>	<u>28</u>	<u>Ammonium hydroxide</u>	<u>pH9</u> <u>50°C x</u> <u>10 min.</u>	<u>5.3</u>	<u>o</u>	<u>◎</u>
<u>Ex. 18</u>	<u>35</u>	<u>Potassium hydroxide</u>	<u>pH12</u> <u>40°C x</u> <u>3 min.</u>	<u>1.0</u>	<u>o</u>	<u>◎</u>
<u>Ex. 19</u>	<u>36</u>	<u>Lithium hydroxide</u>	<u>pH12</u> <u>40°C x</u> <u>3 min.</u>	<u>1.1</u>	<u>o</u>	<u>◎</u>
<u>Ex. 20</u>	<u>33</u>	<u>Sodium hydroxide</u>	<u>pH9</u> <u>50°C x</u> <u>5 min.</u>	<u>1.0</u>	<u>o</u>	<u>◎</u>
<u>Compar.</u> <u>Ex. 5</u>	<u>35</u>	<u>Ammonium hydroxide</u>	<u>pH8</u> <u>50°C x</u> <u>10 min.</u>	<u>10.5</u>	<u>o</u>	<u>x</u>